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ABSTRACT

The major objective of this study was to ascertain which of the eligible persons most influenced students' educational aspirations, expectations, and potential performance. Information on educational aspirations and expectations of 119 Native Americans and 304 non-Indian youth attending 4 small rural high schools in Montana was obtained by questionnaire. Findings showed that parents are perceived to have the most influence on students' school work and that siblings are next important. Data also indicated variations in choice of most influential parent in terms of ethnicity, residence, sex, and level of family income. Differences between Indian students and non-Indian students are not as great as differences between low- and high-income students in either ethnic group. A related document is RC005684. (LS)

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A Comparative Analysis of Indian and Non-Indian Parents' Influence on Educational Aspirations, Expectations, Preferences and Behavior of Indian and Non-Indian High School Students in Four High Schools.

RC005683

Montana Agricultural Experiment Station
Montana State University, Bozeman

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A COMPARATIVE ANALYSIS OF INDIAN AND NON-INDIAN PARENTS' INFLUENCE ON EDUCATIONAL ASPIRATIONS, EXPECTATIONS, PREFERENCES AND BEHAVIOR OF INDIAN AND NON-INDIAN HIGH SCHOOL STUDENTS IN FOUR HIGH SCHOOLS

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INTRODUCTION

The fact that Indian students have higher dropout rates from school and score lower on standardized measures of educational performance (mean scores) is well known.[1] We do not need further documentation of the problem, and some of the causes have been outlined in several reports on Indian Education.[2] These reports also support the argument that the causes are multidimensional and "failure" must be assigned to a variety of sources including the characteristics of the school and its personnel, students and their parents and friends, and the communities and/or nation in which they live.[3] An excellent summary of the problem

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[1]James S. Coleman, et. al., Equality of Educational Opportunity, U.S. Office of Educational Opportunity, U.S. Office of Education, 1966.

[2]There are several national reports that focus on Indian education. See Brewton Berry, The Education of American Indians: A Survey of the Literature, Special Subcommittee on Indian Education, Committee on Labor and Public Welfare, U.S. Senate Committee on Labor and Public Welfare, Indian Education: A National Tragedy-A National Challenge, 1969.

[3]Berry, loc. cit.

and its causes can be found in a recent government publication titled The Education of American Indians: A Survey of the Literature.[4]

This paper will focus on parental influence as a factor in accounting for variation in aspirations and performances of Indian and non-Indian youth. Parents are only one of many types of people who influence young people, however, the literature on educational aspirations and performance reveals that they are very influential,[5] but the degree of influence may vary by type of parent, socioeconomic status of the household head, and place of residence. The report of the findings in the literature that follows will summarize some of the relevant factors in parental influence on aspirations and performance of Indian students.

Several reports on education have indicated that parents are crucial to development of positive attitudes about education, and that they are instrumental in reinforcing high levels of educational aspirations and performance.[6] Yet, others have suggested that Indian parents have been rather apathetic,[7] and fail to provide encouragement for their

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[4]Ibid.

[5]For a research summary of factors relating to occupational and educational decision making of rural youth, see James T. Horner, et. al., Factors Relating to Occupational and Educational Decision Making of Rural Youth, Department of Agricultural Education Report No. 1, University of Nebraska, College of Agriculture and Home Economics, 1967.

[6]See John C. Flanagan, et. al., The American High School Student, Pittsburgh: University of Pittsburgh, 1964.

[7]Ralph L. West, "The Adjustment of the American Indian in Detroit: A Descriptive Study," Master's thesis, Wayne University, 1950.

children. A recent publication does not provide support for apathy of parents when parental interest and pressure of Indian parents is compared with non-Indian parental interest and pressure.[8] In fact, this publication demonstrates that there is more variation in interest and pressure of Indian parents accounted for by level of income than by ethnicity (Indian versus non-Indian). These findings do not cast doubt on the inferences of other researchers who report relatively low aspirations and performances since low-income Indian students did report that their parents had less interest and applied less "pressure." One researcher has suggested that the apathy label can be applied as a convenient excuse for the failure of agencies or educational systems responsible for the education of Indian students.[9] Thus, concomitants of low-family income can be ignored in favor of explaining failure by pointing to inferred deficiencies of persons not directly associated with educational or employment agencies, i.e., Indian parents and their children. These findings raise the question of the appropriateness of generalizing to all Indian parents, and indicate that we need more refined analyses to permit precise accounting of support, or lack of support, by Indian parents. Other reasons given for assigning the apathy label are Indian values of non-interference and permissiveness

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[8] W. L. Larson, "A Comparison of the Differential Effect of Ethnicity and Perception of Family Income on Educational Aspirations, Preparation, and Parental Influence Attempts of Indian and non-Indian Students in Four Rural High Schools in Montana," to be published as an Experiment Station Bulletin, Bozeman, Montana State University.

[9] Murray Wax, "American Indian Education as Cultural Transaction," Teachers College Record, Vol. 64:693-704, May, 1963.

in child rearing.[10]

A few researchers report that some Indian parents are hostile toward school functionaries, or are suspicious and afraid to contact or interact with them.[11] However, others suggest that Indian parents, in the present period of time, do value education and are interested in helping their children achieve an education.[12] Some writers believe that Indian parents encourage education for the material advantages which accrue from achieving higher levels of education.[13] The data from a study not yet reported in the literature provide indirect support for this idea.[14] There was almost unanimous agreement to the statement "I think a person should work hard at school so that someday he can get a

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[10]Tranislado Garcia, "A Study of the Effects of Education Upon the Arapaho Indians of the Wind River Reservation," Master's thesis, University of Wyoming, 1965; Norman A. Chance, The Eskimo of North Alaska, New York: Holt, Rinehart and Winston, 1966.

[11]Darrell D. Atkinson, "Educational Adjustment of Ute Indians as compared to the Mixed-Blood and Native Whites of Union High School, Roosevelt, Utah," Master's thesis, Utah State Agricultural College, 1955; Dennis R. Johnston, "An Analysis of Sources of Information on the Population of the Navaho," Bureau of Ethnology Bulletin 197, Washington: U.S. Government Printing Office, 1966; Albert Wahrhaftig, "Community and the Caretakers," New University Thought, Vol. 4:54-76, Winter, 1966-67.

[12]Edward W. Hassinger, "A Study of the Minority Group's Social Contacts; the Lower Sioux Community of Morton, Minnesota, "Master's thesis, University of Minnesota, 1951; Harry Zentner, "Parental Behavior and Student Attitudes Towards High School Graduation Among Indian and Non-Indian Students in Oregon and Alberta," Alberta Journal of Educational Research, Vol. 7:4:211-219, December, 1962; Harry A. Wolcott, A Kwakiutl Village and School, New York: Holt, Rinehart and Winston, 1967.

[13]Alice Joseph, Rosamond Spicer, and Jane Chesky, The Desert People, Chicago: University of Chicago Press, 1949; Murray Wax, et. al., "Formal Education in an American Indian Community," Society for the Study of Social Problems, P. O. Box 19, Kalamazoo, Michigan, 1964.

[14]The author completed a study of Indian students' reactions to different types of educational situations and values. An article from these data will be published in the future.

good job;" only one percent of the students disagreed with this statement, and in four of the six schools studied none of the Indian students disagreed with the statement. However, when they were asked about behavior which would increase the probability of achieving a good job through education, their answers were somewhat different; 65 percent of those responding felt that enjoying themselves today was sometimes just as important as being concerned with the future. This researcher would suggest, however, that most non-Indian students would probably respond in the same way.

The findings on educational values of Indian parents should be interpreted with some caution since no systematic national study has been done on tribal, regional, or local differences.[15] It would appear that the weight of the evidence would suggest a more positive attitude toward education has developed (or maybe it existed all the time), but the reasons for the shift have not been established. One of the reasons mentioned was the concern for the material advantages of educational achievement. However, other research indicated ambivalence toward educational institutions because of their perceived negative effect on the young Indian, i.e., "pulling" them away from the traditions of the tribe.[16] Most of the literature on causes of problems in Indian education has been for the most part negative in orientation; researchers have attempted to

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[15]The so-called Coleman report is an exception, but it does not provide detailed analysis of tribal and regional differences.

[16]Charles C. Hughes, An Eskimo Village in the Modern World, Ithaca, New York: Cornell University Press, 1960; Wahrhaftig, loc. cit.; Edward A. Parmee, Formal Education and Culture Change: A Modern Apache Indian Community and Government Education Programs, Tucson: University of Arizona Press, 1968.

account for failure by placing the blame on a variety of persons and institutions. This report will focus on some of the positive as well as negative dimensions of parental influence.

A general objective of this study is to identify persons who influence students, the degree of influence, and then show how they influenced students. Finally, variation in patterns of influence by levels of perceived family income, ethnicity, and residence will be explored.

THE SAMPLE

The sample of schools was drawn from all schools in the state of Montana in which Indian students were enrolled. The major objective in sampling was to select schools with particular characteristics so that substantive rather than generalization hypotheses could be tested. Therefore, schools were selected for inclusion on the basis of the following criteria:

1. proportion Indian student enrollment,
2. dropout rate for schools reported in previous study,
3. total size of student enrollment, and
4. type of school, e.g., Federal boarding, private, public.

Two schools refused to cooperate in the study for legitimate reasons. Unfortunately the refusals created gaps in the range of proportions of Indian student enrollment and dropout rate, e.g., there are no schools in the 50-90 percent range as planned.

The sample of students used in the analysis includes all students enrolled in four rural high schools in Montana on the day the questionnaires

were administered. The total number in the sample was 126 Indian and 331 non-Indian students. Of this total 119 Indian and 304 non-Indian questionnaires were used in the analysis. A detailed breakdown of the sample by sex, residence and ethnicity and levels of income is reported in Table 1.

The data by sampling criteria (1-4 above) will not be reported in this paper but will be introduced if it is considered relevant in interpretation and evaluation of the findings.

PROCEDURES

The data on influence were taken from four general sets of questions. Questions were asked about:

1) students' aspirations, expectations and performances;
2) students' perceptions of parent, peer, school personnel, and other persons' influence on their educational and occupational choices;
3) the ways in which individuals (in 2 above) may have influenced them.

The findings will be discussed for parents in detail, but comparative references to other individuals will be introduced occasionally to reveal relative degrees of influence among those identified as influential.

TABLE 1

PROPORTION OF RESPONDENTS IN LOW, AVERAGE AND HIGH INCOME GROUPINGS BY SEX, RESIDENCE AND ETHNICITY

		Low	%	Average	%	High[a]	%	Total
All Students	Male	62	31	88	44	51	25	201
All Students	Female	68	32	79	38	64	30	211
All Students	Farm	44	26	76	46	47	28	167
All Students	Non-farm	89	35	95	37	72	28	167
Indian[b]	Male	18	35	25	49	8	16	51
Indian	Female	31	46	21	31	16	23	68
Indian	Farm	5	24	9	43	7	33	21
Indian	Non-farm	44	45	37	38	17	17	98
Non-Indian	Male	44	29	63	42	43	29	150
Non-Indian	Female	37	26	58	41	48	34	143
Non-Indian	Farm	39	27	67	46	40	27	146
Non-Indian	Non-farm	45	28	58	37	55	35	158

a Totals will differ because of question response rate to questions about sex and residence will differ.

b If students checked "Indian" on a question asking them to identify themselves on the basis of several ethnic categories, we assumed they were Indian students.

FINDINGS

Students were asked to check if father, mother, brother or sister, friends in or out of school, teachers, counselors, principals and superintendent, and other persons had influenced them in their educational plans. Then, they were asked which of these persons influenced them the most. In order to check the internal validity of the measure of most influence, the responses of students to this question were compared to an index of overall influence developed from responses to questions about influence and/or expectations in the area of jobs or schooling, and advice or assistance in several problem areas, e.g., educational goals, finding a job, dating, problems with other students and school personnel, and someone to relate to when they were unhappy or depressed. Seventy-six percent of those students who indicated mother was most influential were classified as students whose most significant other (the index of overall influence) was also mother; the comparable figure for father was 68 percent. Thus, the measure of influence on how far the student will go in school has a high degree of agreement with the overall measure of influence based on responses to eight other questions. There were no consistent differences between extent of agreement on various measures of influence between fathers and mothers; in some comparisons agreement was highest for mother, but on others it was higher for father. Indian students had a lower rate of agreement between different measures than non-Indian students. Since the extent of agreement as measured by percent agreement between different questions for the same choice of influential person from a field of seven

eligible persons was at least 50 percent or higher, the writer assumes that "most influential persons" as identified with this question is an internally valid measure of influence on educational plans for the future. The data are presented in Tables 2-5 classified by residence, ethnicity, and level of perceived family income.

A word of caution should be inserted at this point about interpretation of percentage distributions for Farm-Indian students; there were only 21 students classified in this category.

In the case of Indian farm students, father was chosen most frequently, but for non-Indian farm students mother was chosen most frequently. For non-farm students the findings were reversed, i.e., father was chosen most frequently by non-Indian students and mother by Indian students. When the data was sub-classified by levels of perceived family income, fathers were chosen most frequently by all high income sub-groups except Indian farm students, in which case equal numbers chose father and mother. The reported percentages for parental choices relative to others indicates that parents are considered most influential, but choice of a parent varies by residence. An examination of choices by level of perceived family income indicates that father is most likely to be

TABLE 2

PROPORTION OF INDIAN FARM STUDENTS CHOOSING SELECTED PERSONS WITH MOST INFLUENCE ON THEIR SCHOOL WORK BY LEVEL OF PERCEIVED FAMILY INCOME

INFLUENTIAL PERSON IN SCHOOL WORK	INCOME							
	# LOW	%	# AVERAGE	%	# HIGH	%	# TOTAL	%
Father	1	100	6	75	2	40	9	64
Mother	0	0	2	25	2	40	4	29
Sister or brother	0	0	0	0	0	0	0	0
Friends in school	0	0	0	0	0	0	0	0
Friends not in school	0	0	0	0	0	0	0	0
Teacher	0	0	0	0	1	20	1	7
High School counselor	0	0	0	0	0	0	0	0
High School principal	0	0	0	0	0	0	0	0
Another person	0	0	0	0	0	0	0	0
TOTAL	1	100	8	100	5	100	14	100

TABLE 3

PROPORTION OF NON-INDIAN FARM STUDENTS CHOOSING SELECTED PERSONS WITH MOST INFLUENCE ON THEIR SCHOOL WORK BY LEVEL OF PERCEIVED FAMILY INCOME

INFLUENTIAL PERSON IN SCHOOL WORK	INCOME							
	# LOW	%	# AVERAGE	%	# HIGH	%	# TOTAL	%
Father	9	32	15	27	19	61	43	38
Mother	13	46	28	51	9	29	50	44
Sister or brother	4	14	3	6	2	7	9	8
Friends in school	0	0	1	2	0	0	1	1
Friends not in school	0	0	0	0	0	0	0	0
Teacher	1	4	6	11	1	3	8	7
High School counselor	1	4	0	0	0	0	1	1
High School principal	0	0	1	2	0	0	1	1
Another person	0	0	1	2	0	0	1	1
TOTAL	28	100	55	101	31	100	114	101

TABLE 4

PROPORTION OF INDIAN NON-FARM STUDENTS CHOOSING SELECTED PERSONS WITH MOST INFLUENCE ON THEIR SCHOOL WORK BY LEVEL OF PERCEIVED FAMILY INCOME

INFLUENTIAL PERSON IN SCHOOL WORK	INCOME							
	# LOW	%	# AVERAGE	%	# HIGH	%	# TOTAL	%
Father	6	20	5	17	9	69	20	27
Mother	17	53	12	41	3	23	32	43
Sister or brother	3	9	6	21	0	0	9	12
Friends in school	2	6	1	3	0	0	3	4
Friends not in school	1	3	1	3	0	0	2	3
Teacher	1	3	0	0	0	0	1	2
High School counselor	0	0	2	7	1	8	3	4
High School principal	0	0	0	0	0	0	0	0
Another person	2	6	2	7	0	0	4	0
TOTAL	32	100	29	99	13	100	74	99

TABLE 5

PROPORTION OF NON-INDIAN NON-FARM STUDENTS CHOOSING SELECTED PERSONS WITH MOST INFLUENCE ON THEIR SCHOOL WORK BY LEVEL OF PERCEIVED FAMILY INCOME

INFLUENTIAL PERSON IN SCHOOL WORK	INCOME							
	# LOW	%	# AVERAGE	%	# HIGH	%	# TOTAL	%
Father	9	28	21	46	18	44	48	40
Mother	14	44	16	35	13	32	43	36
Sister or brother	4	13	6	13	7	17	17	14
Friends in school	2	6	0	0	2	5	4	3
Friends not in school	1	3	2	4	1	2	4	3
Teacher	0	0	0	0	0	0	0	0
High School counselor	1	3	0	0	0	0	1	1
High School principal	0	0	0	0	0	0	0	0
Another person	1	3	1	2	0	0	2	2
TOTAL	32	100	46	100	41	100	119	99

chosen by students who reported higher levels of family income.[17] Other than parents, siblings tend to be chosen more frequently than other persons, but Indian farm students selected teachers as influential persons in seven percent of the cases, however, the total number of students classified as Indian farm students was small.

The fact that parents are considered most important is consistent with data from other studies; parents are usually mentioned or selected most frequently as persons who influenced educational and occupational decision making.[18] However, the differences by level of income demand a tentative and speculative explanation. This writer is not aware of any literature which supported or contradicted the variation in choice of influentials by level of income, i.e., mothers chosen by lower income students and fathers chosen by higher income students as a trend in the data. One might suggest that fathers with higher levels of income have higher levels of education and occupations with higher levels of

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[17]There were two measures of perceived family income. A composite index of family income was developed from these two measures. The questions were as follows:

1. In terms of income or wealth in my community, I think my family is:
   1. considerably above average
   2. somewhat above average
   3. average
   4. somewhat below average
   5. considerably below average
2. How well-off is your family?
   1. hardly able to make a living
   2. have just enough to live on
   3. pretty well off
   4. very well off
   5. pretty rich

The data were combined into three levels of income—low, average and high.

[18]Data from a study in the State of Washington were quite similar to data in this study, i.e., parents were chosen most frequently and variation by sex was in the same direction. See W. L. Larson, "The Relationship between Values and Educational Choices of High School Students," PhD. Dissertation, Washington State University, 1968.

occupational prestige. Therefore, they would be chosen over fathers with low income because they are more knowledgeable. A second reason for the difference by levels of income may be that high income fathers are perceived as more credible sources of advice and information because they are by "cultural" definition labeled as more knowledgeable. A third possibility is that children emulate and look up to those persons who are defined as important and successful by members of their community. Thus, high income fathers would serve as role models or "significant others" more frequently than low income fathers because they are high on prestige in the community. A final reason may be that high income fathers tend to marry women who have, on the average, lower levels of socio-economic status.[19] Hence, mothers of high income students would not be evaluated in the same way as high income fathers. Whatever the reason or reasons for the differences by level of income, the findings are quite consistent and suggest that further analysis is necessary to explore new hypotheses.

One of the factors which may have influenced choices of students is the sex of the respondent. An analysis of the choices of influentials by sex and level of perceived family income is presented in Tables 6-9.

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[19]This line of reasoning was suggested by Carl Couch, University of Iowa.

TABLE 6

PROPORTION OF INDIAN MALE STUDENTS CHOOSING SELECTED PERSONS WITH MOST INFLUENCE ON THEIR SCHOOL WORK BY LEVEL OF PERCEIVED FAMILY INCOME

INFLUENTIAL PERSON IN SCHOOL WORK	INCOME							
	# LOW	%	# AVERAGE	%	# HIGH	%	# TOTAL	%
Father	3	30	5	25	7	100	15	41
Mother	4	40	10	50	0	0	14	38
Sister or brother	1	10	3	15	0	0	4	11
Friends in school	1	10	1	5	0	0	2	5
Friends not in school	0	0	0	0	0	0	0	0
Teacher	1	10	0	0	0	0	1	3
High School counselor	0	0	1	5	0	0	1	3
High School principal	0	0	0	0	0	0	0	0
Another person	0	0	0	0	0	0	0	0
TOTAL	10	100	20	100	7	100	37	101

TABLE 7

PROPORTION OF NON-INDIAN MALE STUDENTS CHOOSING SELECTED PERSONS WITH MOST INFLUENCE ON THEIR SCHOOL WORK BY LEVEL OF PERCEIVED FAMILY INCOME

INFLUENTIAL PERSON IN SCHOOL WORK	INCOME							
	# LOW	%	# AVERAGE	%	# HIGH	%	# TOTAL	%
Father	12	39	23	41	32	69	57	48
Mother	13	42	21	38	9	28	43	36
Sister or brother	6	19	5	9	1	3	12	10
Friends in school	0	0	0	0	0	0	0	0
Friends not in school	0	0	1	2	0	0	1	1
Teacher	0	0	3	5	0	0	3	3
High School counselor	0	0	0	0	0	0	0	0
High School principal	0	0	1	2	0	0	1	1
Another person	0	0	2	4	0	0	2	2
TOTAL	31	100	56	101	32	100	119	101

TABLE 8

PROPORTION OF INDIAN FEMALE STUDENTS CHOOSING SELECTED PERSONS WITH MOST INFLUENCE ON THEIR SCHOOL WORK BY LEVEL OF PERCEIVED FAMILY INCOME

INFLUENTIAL PERSON IN SCHOOL WORK	INCOME							
	# LOW	%	# AVERAGE	%	# HIGH	%	# TOTAL	%
Father	4	17	6	35	4	36	14	27
Mother	13	56	4	24	5	46	22	43
Sister or brother	2	9	3	18	0	0	5	10
Friends in school	1	4	0	0	0	0	1	2
Friends not in school	1	4	1	6	0	0	2	4
Teacher	0	0	0	0	1	9	1	2
High School counselor	0	0	1	6	1	9	2	4
High School principal	0	0	0	0	0	0	0	0
Another person	2	9	2	12	0	0	4	8
TOTAL	23	99	17	101	11	100	51	100

TABLE 9

PROPORTION OF NON-INDIAN FEMALE STUDENTS CHOOSING SELECTED PERSONS WITH MOST INFLUENCE ON THEIR SCHOOL WORK BY LEVEL OF PERCEIVED FAMILY INCOME

INFLUENTIAL PERSON IN SCHOOL WORK	INCOME							
	# LOW	%	# AVERAGE	%	# HIGH	%	# TOTAL	%
Father	6	21	13	30	15	38	34	30
Mother	13	46	22	50	13	32	48	43
Sister or brother	2	7	4	9	8	20	14	12
Friends in school	2	7	1	2	2	5	5	4
Friends not in school	1	4	1	2	1	3	3	3
Teacher	1	4	3	7	1	3	5	4
High School counselor	2	7	0	0	0	0	2	2
High School principal	0	0	0	0	0	0	0	0
Another person	1	4	0	0	0	0	1	1
TOTAL	28	100	44	100	40	101	112	101

Again the data indicate that mother and father are most important but there is consistent variation by sex and levels of perceived family income. Boys are more apt to choose father and girls mother. The tendency is strongest for females choosing mothers, i.e., a higher percentage difference between choices for mother and father for females than males — 3 and 12 percent for males, 16 and 13 percent for females. When levels of income are introduced as a control, students who reported higher levels of income are more likely to choose father than those with low income. None of the high income Indian males chose mother. Low income students chose mothers more frequently, but female students were more likely to have chosen father if they reported higher levels of income. Before examining the ways in which parents influence their children, a few generalizations from the findings on parental influences on education or school work are in order.

First, and probably most important, choices of students vary by sex, level of income, and residence. Boys tend to choose fathers, and girls choose mothers. There is consistent evidence that fathers are perceived as most influential if students report higher levels of family income regardless of sex, residence or ethnicity. Reasons for the variation by income levels have been explored above and will be discussed again after examining the findings on ways that parents influence their childrens' aspirations and performances.

In order to determine the ways in which parents might influence students' aspirations and performance, several questions were inserted in the questionnaire to explore interest and influence attempts. The set of questions included questions on parental expectations for their childrens'

future achievements in formal education, degree of parental interest, degree of parental "pressure," and attempts to influence students' choices of friends.

The measures of association for the relationship between parents' educational aspirations, interest in school work, level of "pressure" on their childrens' school work, and level of perceived family income by ethnicity, residence and sex are reported in Table 10. In order to simplify the discussion of the findings, the presentation of the data will be limited to discussions of measures of association (gamma) and selected percentage groupings for the relationship between levels of income and parental aspirations, interest and "pressure."[20]

The gammas for the relationship between fathers' educational aspirations and level of family income as reported in Tables 11 and 12 were positive for all residence subclassifications, ranging in magnitude from .071 to .384.

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[20]The term "pressure" is used in place of the wording in the questionnaire, e.g., " does your father or mother get after you to do well in your school work?" The response to the statement is the indicator of parental pressure, and can be considered a partial definition of parental pressure. It would be presumptuous to deny the probability of other indicators of parental pressure.

TABLE 10

REPORTED GAMMAS FOR THE RELATIONSHIP BETWEEN LEVEL OF FAMILY INCOME AND FATHERS' EDUCATIONAL ASPIRATIONS, MOTHERS' EDUCATIONAL ASPIRATIONS, FATHERS' INTEREST IN SCHOOL WORK, MOTHERS' INTEREST IN SCHOOL WORK, FATHERS' PRESSURE ON SCHOOL WORK, AND MOTHERS' PRESSURE ON SCHOOL WORK BY ETHNICITY, RESIDENCE, AND SEX OF STUDENTS

	Indian				Non-Indian			
	Farm	Non-farm	Male	Female	Farm	Non-farm	Male	Female
Fathers' educational aspirations	.042	.384	.386	.319	.365	.071	.153	.223
Mothers' educational aspirations	.068	.134	.285	.029	.265	.081	.097	.228
Fathers' interest in school work	-.130[a]	-.346	-.492	-.153	-.005	-.349	-.235	-.181
Mothers' interest in school work	-.415	-.245	-.233	-.181	-.020	-.247	-.019	-.260
Fathers' pressure on school work	.455	.440	.368	.369	-.017	.072	-.040	-.013
Mothers' pressure on school work	-.163	-.275	.119	.166	.029	-.208	.093	.099

[a] The response categories of degree of parental interest were ordered from high to low and level of family income from low to high, therefore, the higher the income the higher the interest of parents.

TABLE 11

PERCENTAGES FOR INDIAN FATHERS' LEVEL OF EDUCATIONAL ASPIRATION FOR THEIR CHILDREN BY RESIDENCE AND LEVEL OF INCOME

FATHERS' EDUCATIONAL ASPIRATIONS	FARM								NON-FARM							
	INCOME								INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Grad. High School	0	0	1	17	0	0	1	7	13	50	7	32	2	14	22	35
Trade School	1	33	1	17	3	60	5	36	3	12	5	23	3	21	11	18
Jr. College 1-3 years	2	67	0	0	0	0	2	14	3	12	2	9	0	0	5	8
Grad. 4 year college	0	0	4	66	2	40	6	43	6	23	7	32	6	43	19	31
M.S. or PhD.	0	0	0	0	0	0	0	0	1	4	1	4	3	21	5	8
TOTAL	3	100	6	100	5	100	14	100	26	101	22	100	14	99	62	100
GAMMA	.0417								.3836							

TABLE 12

PERCENTAGES FOR NON-INDIAN FATHERS' LEVEL OF EDUCATIONAL ASPIRATION FOR THEIR CHILDREN BY RESIDENCE AND LEVEL OF INCOME

FATHERS' EDUCATIONAL ASPIRATIONS	FARM INCOME								NON-FARM INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Grad. High School	6	23	6	12	5	16	17	16	3	10	8	17	1	2	12	10
Trade School	7	27	9	18	3	9	19	18	4	13	10	22	10	23	24	20
Jr. College 1-3 years	5	19	5	10	1	3	11	10	4	13	3	7	6	14	13	11
Grad. 4 years college	7	27	23	46	13	41	43	40	14	47	20	44	17	39	51	43
M.S. or PhD.	1	4	7	14	10	31	18	17	5	17	5	11	10	23	20	17
TOTAL	26	100	50	100	32	100	108	101	30	100	46	101	44	101	120	101
GAMMA	.3647								.0714							

The closest relationships were reported for Indian non-farm and non-Indian farm students. The only exception to high income students reporting fathers expected them to complete 4 years of college was for students who were non-farm and non-Indian. Otherwise, high income students indicated that they thought their fathers had higher educational aspirations for them than low income students.

The findings for mothers' educational aspirations in Tables 13 and 14 are similar to the data for fathers, i.e., the gammas are positive.

The closest association was found for Indian non-farm and non-Indian farm students, .134 and .265 respectively. There was an interesting exception for students who indicated that they thought their mothers wanted them to obtain an M.S. or PhD. degree; 18 percent of the non-farm Indian students in the low income as opposed to none in the high income group.

Other researchers have made a case for mothers aspirations being higher than fathers', and that mothers are more influential. These data lend support to those findings when percentage with college aspirations is considered, but the differences are small. When fathers and mothers educational aspirations were correlated with students educational aspirations and expectations the highest correlation in Table 15 was noted for

TABLE 13

PERCENTAGES FOR INDIAN MOTHERS' LEVEL OF EDUCATIONAL ASPIRATION FOR THEIR CHILDREN BY RESIDENCE AND LEVEL OF INCOME

MOTHERS' EDUCATIONAL ASPIRATIONS	FARM INCOME								NON-FARM INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Grad. High School	0	0	2	25	0	0	2	12	13	38	6	21	1	7	20	26
Trade School	1	33	2	25	3	60	6	38	4	12	7	25	4	29	15	20
Jr. College 1-3 years	2	67	0	0	0	0	2	12	2	6	1	4	1	7	4	5
Grad. 4 years college	0	0	4	50	2	40	6	38	9	27	9	32	8	57	26	34
M.S. or PhD.	0	0	0	0	0	0	0	0	6	18	5	18	0	0	11	14
TOTAL	3	100	8	100	5	100	16	100	34	101	28	100	14	100	76	99
GAMMA	.0667								.1344							

TABLE 14

PERCENTAGES FOR NON-INDIANS MOTHERS' LEVEL OF EDUCATIONAL ASPIRATIONS FOR THEIR CHILDREN BY RESIDENCE AND LEVEL OF INCOME

MOTHERS' EDUCATIONAL ASPIRATIONS	FARM INCOME								NON-FARM INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Grad. High School	7	23	5	9	4	13	16	13	4	11	8	17	3	7	15	12
Trade School	6	20	17	29	3	9	26	21	8	22	9	19	10	23	27	21
Jr. College 1-3 years	3	10	3	5	1	3	7	6	4	11	4	8	4	9	12	9
Grad. 4 years college	12	40	25	42	18	56	55	45	14	39	18	38	17	39	49	38
M.S. or PhD.	2	7	9	15	6	19	17	14	6	17	9	19	10	23	25	20
TOTAL	30	100	59	100	32	100	121	99	36	100	48	101	44	101	128	100
GAMMA	.2652								.0807							

mothers for the relationship between Indian mothers' and students' educational aspirations, but was as high or higher for Indian fathers on other comparisons.

The reverse was true for non-Indian parents. However, one outstanding difference should be noted. The correlation between educational aspirations of parents for their children and students educational aspirations and expectations presented in Table 15 reveals that the reduction in error in predicting students aspirations and expectations from their perception of their parents' aspirations is greater for Indian than non-Indian students.[21]

Hence, no definitive conclusions can be made from the data in this study about the relative importance of fathers' versus mothers' educational aspirations for their children. The gamma for the correlation between students' perceptions of family income and fathers' educational

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[21]This inference is possible only if one assumes that one of the appropriate interpretations of gamma is that it is a proportionate reduction of error measure, this is, gamma is interpreted in this way by Costner. He states that the "absolute value of gamma is therefore a 'P-R-E' measure, indicating the proportion by which error in estimating the order of pairs of units can be reduced as one shifts from a random device for estimating order to the estimation of the rule suggested above." Herbert L. Costner, "Criteria for Measures of Association," American Sociological Review, Vol. 30 (June 1965), p. 347.

TABLE 15

REPORTED GAMMAS FOR THE RELATIONSHIP BETWEEN STUDENTS EDUCATIONAL ASPIRATIONS AND EXPECTATIONS AND EDUCATIONAL ASPIRATIONS OF FATHERS AND MOTHERS BY ETHNICITY

	Educational Aspirations		Educational Expectations	
	Indian	Non-Indian	Indian	Non-Indian
Fathers' educational aspirations	.333	.661	.385	.676
Mothers' educational aspirations	.494	.645	.324	.708

aspirations was .384 for Indian non-farm students but .042 for Indian farm students. The gammas for the relationship between mothers' educational aspirations and level of family income were .134 for Indian non-farm students and .068 for Indian farm students. Again the data suggest that fathers and mothers' educational aspirations for their children rise with level of family income for non-farm students, but the impact of income is greater for mothers in the case of Indian farm students. The data for non-Indian students is similar to data for Indian students, however, the gammas are higher.

A second question was developed to inquire about parents' interest in their children's school work. Students were asked to indicate how much interest their fathers and mothers had in their school work. If the responses given were similar to responses to similar questions in other studies, we would expect a positive correlation between levels of income and degree of interest, and that mothers would express a higher interest in school work.

The data in Tables 16-19 indicate that there is a positive relationship between levels of income and degree of interest, and the magnitude of association is greater for non-farm than farm students regardless of ethnicity, except for mothers' interest in the case of Indian farm students.

TABLE 16

PERCENTAGES FOR INDIAN FATHERS' DEGREE OF INTEREST IN THEIR CHILDRENS SCHOOL WORK BY RESIDENCE AND LEVEL OF INCOME

FATHERS' INTEREST IN SCHOOL WORK	FARM INCOME								NON-FARM INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
A lot	2	50	6	86	3	60	11	69	15	39	16	55	9	64	40	49
Some	1	25	0	0	1	20	2	13	10	26	9	31	4	29	23	28
A little	0	0	0	0	1	20	1	6	8	21	1	3	0	0	9	11
Not particularly interested	0	0	1	14	0	0	1	6	4	10	1	3	1	7	6	7
No interest	1	25	0	0	0	0	1	6	2	5	2	7	0	0	4	5
TOTAL	4	100	7	100	5	100	16	100	39	101	29	99	14	100	82	100
GAMMA	-.1304								-.3464							

TABLE 17

PERCENTAGES FOR NON-INDIAN FATHERS' DEGREE OF INTEREST IN THEIR CHILDRENS SCHOOL WORK BY RESIDENCE AND LEVEL OF INCOME

FATHERS' INTEREST IN SCHOOL WORK	FARM INCOME								NON-FARM INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
A lot	24	69	35	57	23	64	82	62	19	44	32	59	38	73	89	60
Some	7	20	16	26	12	33	35	26	11	26	12	22	8	15	31	21
A little	1	3	6	10	1	3	8	6	6	14	4	7	5	10	15	10
Not particularly interested	2	6	5	8	0	0	7	5	5	12	5	9	1	2	11	7
No interest	1	3	0	0	0	0	1	1	2	5	1	2	0	0	3	2
TOTAL	35	101	62	101	36	100	133	100	43	101	54	100	52	100	149	100
GAMMA	-.0046								-.3485							

TABLE 18

PERCENTAGES FOR INDIAN MOTHERS' DEGREE OF INTEREST IN THEIR CHILDRENS SCHOOL WORK BY RESIDENCE AND LEVEL OF INCOME

MOTHERS' INTEREST IN SCHOOL WORK	FARM INCOME								NON-FARM INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
A lot	2	50	7	88	4	80	13	76	25	61	24	80	10	71	59	69
Some	1	25	0	0	1	20	2	12	12	29	4	13	3	21	19	22
A little	0	0	0	0	0	0	0	0	3	7	1	3	1	7	5	6
Not particularly interested	0	0	1	13	0	0	1	6	0	0	0	0	0	0	0	0
No interest	1	25	0	0	0	0	1	6	1	2	1	3	0	0	2	2
TOTAL	4	100	8	101	5	100	17	100	41	99	30	99	14	99	85	99
GAMMA	-.4146								-.2447							

TABLE 19

PERCENTAGES FOR NON-INDIAN MOTHERS' DEGREE OF INTEREST IN THEIR CHILDRENS SCHOOL WORK BY RESIDENCE AND LEVEL OF INCOME

MOTHERS' INTEREST IN SCHOOL WORK	FARM								NON-FARM							
	INCOME								INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
A lot	26	70	50	79	27	73	103	75	24	57	39	74	35	75	98	69
Some	10	27	11	18	7	19	28	20	14	33	9	17	11	23	34	24
A little	1	3	1	2	2	5	4	3	2	5	3	6	1	2	6	4
Not particularly interested	0	0	1	2	1	3	2	2	1	2	2	4	0	0	3	2
No interest	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	1
TOTAL	37	100	63	101	37	100	137	100	42	99	53	101	47	100	142	100
GAMMA	-.0199								-.2470							

An examination of the percentages for "quite a bit" and "a lot" of interest in all tables reveals that mothers appear to be more interested but both parents are perceived as having relatively high levels of interest. The differences between Indian and non-Indian students were not as great as some of the differences between low and high income students on this question.

A third question was asked to determine the extent to which parents attempted to influence students performance in school work. Again, the direction of the relationship between level of perceived family income and level of "pressure" was expected to be positive. Comparable data on parental pressure was not available to predict which parent would be most likely to apply the greatest "pressure." The data in Tables 20-23 do not support the hypothesis of positive relationships between level of income and "pressure" for all subclassifications or control groups, e.g., a negative correlation was reported for non-Indian farm students when they reported on their fathers' behavior. (Table 21).

When students reported on mothers' behavior, the data in Tables 22 and 23 indicate a negative relationship between level of income and "pressure" except for non-Indian farm students (Table 23). It seems that income operates differently for fathers and mothers; high income

TABLE 20

PERCENTAGES FOR LEVEL OF INDIAN FATHERS' "PRESSURE" ON THEIR CHILDREN TO DO GOOD WORK IN SCHOOL BY RESIDENCE AND LEVEL OF INCOME

FATHER GETS AFTER STUDENT TO DO WELL IN SCHOOL	FARM								NON-FARM							
	INCOME								INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Doesn't have to	1	25	2	29	0	0	3	19	8	21	1	4	2	14	11	14
Free to do as wishes	3	75	1	14	2	40	6	38	11	28	5	18	0	0	16	20
Not too hard	0	0	2	29	1	20	3	19	12	31	14	50	3	21	29	36
Quite a bit	0	0	1	14	2	40	3	19	4	10	7	25	3	21	14	17
A lot	0	0	1	14	0	0	1	6	4	10	1	4	6	43	11	14
TOTAL	4	100	7	100	5	100	16	101	39	100	28	101	14	99	81	101
GAMMA	.4545								.4403							

TABLE 21

PERCENTAGES FOR LEVEL OF NON-INDIAN FATHERS' "PRESSURE" ON THEIR CHILDREN TO DO GOOD WORK IN SCHOOL BY RESIDENCE AND LEVEL OF INCOME

FATHER GETS AFTER STUDENT TO DO WELL IN SCHOOL	FARM INCOME								NON-FARM INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Doesn't have to	4	12	17	28	7	20	28	22	5	13	9	18	10	21	24	18
Free to do as wishes	5	15	9	15	3	9	17	13	13	33	10	20	7	15	30	22
Not too hard	17	50	19	31	16	46	52	40	14	36	20	39	16	34	50	36
Quite a bit	6	18	11	18	6	17	23	18	5	13	5	10	11	23	21	15
A lot	2	6	5	8	3	9	10	8	2	5	7	14	3	6	12	9
TOTAL	34	101	61	100	35	101	130	101	39	100	51	101	47	99	137	100
GAMMA	-.0168								.0723							

TABLE 22

PERCENTAGES FOR LEVEL OF INDIAN MOTHERS' "PRESSURE" ON THEIR CHILDREN TO DO GOOD WORK IN SCHOOL BY RESIDENCE AND LEVEL OF INCOME

MOTHER GETS AFTER STUDENT TO DO WELL IN SCHOOL	FARM INCOME								NON-FARM INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Doesn't have to	0	0	1	10	0	0	1	7	2	14	4	7	2	12	8	10
Free to do as wish	2	67	3	30	1	100	6	43	0	0	9	17	4	25	13	16
Not too hard	0	0	4	40	0	0	4	29	4	29	18	33	6	38	28	33
Quite a bit	0	0	1	10	0	0	1	7	2	14	16	30	1	6	19	23
A lot	1	33	1	10	0	0	2	14	6	43	7	13	3	19	16	19
TOTAL	3	100	10	100	1	100	14	100	14	100	54	100	16	100	84	101
GAMMA	-.1633								-.2746							

TABLE 23

PERCENTAGES FOR LEVEL OF NON-INDIAN MOTHERS' "PRESSURE" ON THEIR CHILDREN TO DO GOOD WORK IN SCHOOL BY RESIDENCE AND LEVEL OF INCOME

MOTHER GETS AFTER STUDENT TO DO WELL IN SCHOOL	FARM								NON-FARM							
	INCOME								INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Doesn't have to	5	13	16	19	2	12	23	17	3	6	14	17	3	21	20	14
Free to do as wish	3	8	5	6	1	6	9	6	8	17	9	11	4	29	21	15
Not too hard	16	42	23	27	7	44	46	33	18	38	29	36	5	36	52	36
Quite a bit	7	18	23	27	3	19	33	24	10	21	16	20	1	7	27	19
A lot	7	18	17	20	3	19	27	20	9	19	13	16	1	7	23	16
TOTAL	38	99	84	99	16	100	138	100	48	101	81	100	14	100	143	100
GAMMA	+.0292								-.2076							

fathers apply "pressure" and wives of low income fathers apply "pressure." This is consistent with data reported above which indicate father is the parent who is most apt to be influential for high income students in school work, whereas mothers would be most influential for low income students. One of the response categories in the question on "pressure" was "I am free to do as I wish." The data for response to "pressure" of students' fathers clearly show a decrease in the proportion who are allowed to do as they wish with increasing level of income for non-farm students, and for non-farm Indian students there were no students in the high income category who checked this response. Indian farm students were an exception to this trend even though the gamma for this group of students was the highest (.4545). On the same response category, high income students reported the highest proportion of mothers who let them do as they wished with the exception of non-Indian farm students where the percentages by income groupings were approximately equal, 8, 6 and 6 percent, respectively (Table 23).

The findings on parental aspirations, interests, and "pressure" are consistent with the findings on influence, that is, fathers are more likely to have higher educational aspirations for their children, more interest in their childrens' school work, and "apply more pressure" on their children to do well in their school work if they have high levels of income as reported by students. Low income mothers are more likely to have high educational aspirations, interest, and "apply more pressure."

The relationship between levels of income and levels of parental aspiration, interest and "pressure" was analyzed controlling for ethnicity and sex of students. The gammas were reported in Table 10, and percentage groupings are reported in Tables 24-36.

The correlations between fathers' educational aspirations and level of family income controlling for sex of students are reported in Tables 24 and 25. The gammas were positive in all subclassifications ranging from .386 for Indian male to a low of .153 for non-Indian male students. The correlations in Tables 26 and 27 were also positive for mothers' educational aspirations; however, the magnitude of the gammas was lower for all subclassifications except non-Indian female in which case they were almost identical to those reported for fathers' aspirations. Thus, there is further evidence (under different controlling conditions) for level of income being more crucial as a predictor variable for father as opposed to mother although these data indicate that level of income accounts for variation in the predicted direction for both parents, i.e., the higher the perceived level of family income, the higher the level of educational aspirations of parents for their children.

The relationship between parental interest in their childrens' school work and level of family income was expected to be positive in direction. An examination of the data in Tables 28-31 indicates that

TABLE 24

PERCENTAGES FOR INDIAN FATHERS' EDUCATIONAL ASPIRATIONS FOR THEIR CHILDREN BY SEX AND LEVEL OF FAMILY INCOME

FATHERS' EDUCATIONAL ASPIRATIONS	MALE INCOME								FEMALE INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Grad. High School	6	54	7	47	1	14	14	42	7	39	1	8	1	9	9	22
Trade School	0	0	3	20	1	14	4	12	4	22	2	17	5	46	11	27
Jr. College 1-3 years	3	27	0	0	0	0	3	9	2	11	2	17	0	0	4	10
Grad. 4 years college	1	9	5	33	3	43	9	27	5	28	6	50	4	36	15	37
M.S. or PhD.	1	9	0	0	2	29	3	9	0	0	1	8	1	9	2	5
TOTAL	11	99	15	100	7	100	33	99	18	100	12	100	11	100	41	101
GAMMA	.3864								.3188							

TABLE 25

PERCENTAGES FOR NON-INDIAN FATHERS' EDUCATIONAL ASPIRATIONS FOR THEIR CHILDREN BY SEX AND LEVEL OF FAMILY INCOME

FATHERS' EDUCATIONAL ASPIRATIONS	MALE INCOME								FEMALE INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Grad. High School	6	21	10	19	5	15	21	18	3	12	4	10	1	3	8	8
Trade School	5	17	6	11	4	12	15	13	5	20	13	33	9	23	27	26
Jr. College 1-3 years	3	10	1	2	3	9	7	6	5	20	6	15	4	10	15	15
Grad. 4 years college	11	38	28	53	12	36	51	44	10	40	14	36	17	44	41	40
M.S. or PhD.	4	14	8	15	9	27	21	18	2	8	2	5	8	20	12	12
TOTAL	29	100	53	100	33	100	115	99	25	100	39	99	39	100	103	101
GAMMA	.1530								.2232							

TABLE 26

PERCENTAGES FOR INDIAN MOTHERS' EDUCATIONAL
ASPIRATIONS FOR THEIR CHILDREN
BY SEX AND LEVEL OF
FAMILY INCOME

MOTHERS' EDUCATIONAL ASPIRATIONS	MALE INCOME								FEMALE INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Grad. High School	6	50	5	26	0	0	11	30	7	28	3	19	1	8	11	21
Trade School	0	0	6	32	1	17	7	19	5	20	2	12	6	50	13	25
Jr. College 1-3 yrs.	1	8	0	0	0	0	1	3	3	12	1	6	1	8	5	9
Grad. 4 years college	3	25	7	37	5	83	15	41	6	24	6	38	4	33	16	30
M.S. or PhD.	2	17	1	5	0	0	3	8	4	16	4	25	0	0	8	15
TOTAL	12	100	19	100	6	100	37	101	25	100	16	100	12	99	53	100
GAMMA	.2852								.0285							

TABLE 27

PERCENTAGES FOR NON-INDIAN MOTHERS' EDUCATIONAL ASPIRATIONS FOR THEIR CHILDREN BY SEX AND LEVEL OF FAMILY INCOME

MOTHERS' EDUCATIONAL ASPIRATIONS	MALE INCOME								FEMALE INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Grad. High School	7	21	8	15	6	18	21	17	4	13	5	10	1	3	10	8
Trade School	4	12	6	11	2	6	12	10	9	30	20	41	10	26	39	33
Jr. College 1-3 years	2	6	1	2	2	6	5	4	4	13	5	10	3	8	12	10
Grad. 4 years college	16	47	28	52	16	48	60	50	10	33	14	29	18	46	42	36
M.S. or PhD.	5	15	11	20	7	21	23	19	3	10	5	10	7	18	15	13
TOTAL	34	101	54	100	33	99	121	100	30	99	49	100	39	99	118	100
GAMMA					.0971								.2284			

TABLE 28

PERCENTAGES FOR INDIAN FATHERS' DEGREE OF INTEREST IN THEIR CHILDRENS' SCHOOL WORK BY SEX AND LEVEL OF FAMILY INCOME

FATHERS' DEGREE OF INTEREST IN SCHOOL WORK	MALE INCOME								FEMALE INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
A lot	7	44	13	72	6	75	26	62	10	37	7	44	5	50	22	42
Some	2	12	3	17	2	25	7	17	9	33	6	38	3	30	18	34
A little	4	25	1	6	0	0	5	12	4	15	0	0	1	10	5	9
Not particularly interested	2	12	1	6	0	0	3	7	2	7	1	6	1	10	4	8
No interest	1	6	0	0	0	0	1	2	2	7	2	12	0	0	4	8
TOTAL	16	99	18	101	8	100	42	100	27	99	16	100	10	100	53	101
GAMMA	-.4924								-.1529							

TABLE 29

PERCENTAGES FOR NON INDIAN FATHERS' DEGREE OF INTEREST IN THEIR CHILDRENS' SCHOOL WORK BY SEX AND LEVEL OF FAMILY INCOME

FATHERS' DEGREE OF INTEREST IN SCHOOL WORK	MALE INCOME								FEMALE INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
A lot	23	58	33	54	28	74	84	60	19	54	30	59	29	66	78	60
Some	10	25	18	30	9	24	37	27	7	20	10	20	11	25	28	22
A little	0	0	4	7	1	3	5	4	6	17	6	12	3	7	15	12
Not particularly interested	4	10	5	8	0	0	9	6	3	9	5	10	1	2	9	7
No interest	3	8	1	2	0	0	4	3	0	0	0		0		0	
TOTAL	40	101	61	101	38	101	139	100	55	100	51	101	44	100	130	101
GAMMA	-.2348								-.1810							

TABLE 30

PERCENTAGES FOR INDIAN MOTHERS' DEGREE OF INTEREST IN THEIR CHILDRENS' SCHOOL WORK BY SEX AND LEVEL OF FAMILY INCOME

MOTHERS' DEGREE OF INTEREST IN SCHOOL WORK	MALE INCOME								FEMALE INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
A lot	10	67	17	85	5	71	32	76	17	57	11	69	8	73	36	63
Some	3	20	3	15	2	29	8	19	10	33	2	12	2	18	14	25
A little	1	7	0	0	0	0	1	2	2	7	1	6	1	9	4	7
Not particularly interested	0	0	0	0	0	0	0	0	0	0	1	6	0	0	1	2
No interest	1	7	0	0	0	0	1	2	1	3	1	6	0	0	2	4
TOTAL	15	101	20	100	7	100	42	99	30	100	16	99	11	100	57	101
GAMMA	-.2329								-.1810							

TABLE 31

PERCENTAGES FOR NON-INDIAN MOTHERS' DEGREE OF INTEREST IN THEIR CHILDRENS' SCHOOL WORK BY SEX AND LEVEL OF FAMILY INCOME

MOTHERS' INTEREST IN SCHOOL WORK	MALE								FEMALE							
	INCOME								INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
A lot	30	73	43	70	27	73	100	72	20	53	45	83	32	73	97	71
Some	10	24	14	23	8	22	32	23	14	37	6	11	10	23	30	22
A little	1	2	2	3	1	3	4	3	2	5	2	4	2	5	6	4
Not particularly interested	0	0	2	3	1	3	3	2	1	3	1	2	0	0	2	1
No interest	0	0	0	0	0	0	0	0	1	3	0		0	0	1	1
TOTAL	41	99	61	99	37	101	139	100	38	101	54	100	44	101	136	99
GAMMA	.0191								-.2604							

TABLE 32

PERCENTAGES FOR INDIAN FATHERS' LEVEL OF "PRESSURE" ON THEIR CHILDRENS' SCHOOL WORK BY SEX AND LEVEL OF FAMILY INCOME

FATHER GETS AFTER STUDENT TO DO WELL IN SCHOOL	MALE INCOME								FEMALE INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Doesn't have to	4	25	2	11	1	14	7	17	5	18	2	13	1	9	8	15
Free to do as wish	3	19	3	17	0	0	6	15	11	41	3	20	2	18	16	30
Not too hard	5	31	7	39	1	14	13	32	7	26	7	47	3	27	17	32
Quite a bit	2	12	5	28	2	29	9	22	2	7	2	13	2	18	6	11
A lot	2	12	1	6	3	43	6	15	2	7	1	7	3	27	6	11
TOTAL	16	99	18	101	7	100	41	101	27	99	15	100	11	101	53	99
GAMMA	.3682								.3689							

TABLE 33

PERCENTAGES FOR NON-INDIAN FATHERS' LEVEL OF "PRESSURE" ON THEIR CHILDRENS' SCHOOL WORK BY SEX AND LEVEL OF FAMILY INCOME

FATHER GETS AFTER STUDENT TO DO WELL IN SCHOOL	MALE INCOME								FEMALE INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Doesn't have to	3	8	13	22	5	14	21	16	6	18	13	26	12	28	31	24
Free to do as wish	9	23	8	13	3	8	20	15	9	26	11	22	7	16	27	21
Not too hard	17	44	23	38	17	47	57	42	14	41	15	29	15	35	44	34
Quite a bit	7	18	8	13	9	25	24	18	4	12	8	16	7	16	19	15
A lot	3	8	8	13	2	6	13	10	1	3	4	8	2	5	7	5
TOTAL	39	101	60	99	36	100	135	101	34	100	51	101	43	100	128	99
GAMMA	.0390								-.0125							

TABLE 34

PERCENTAGES FOR INDIAN MOTHERS' LEVEL OF "PRESSURE" ON THEIR CHILDRENS' SCHOOL WORK BY SEX AND LEVEL OF FAMILY INCOME

MOTHER GETS AFTER STUDENT TO DO WELL IN SCHOOL	MALE INCOME								FEMALE INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Doesn't have to	0	0	2	10	1	14	3	7	4	13	1	7	1	9	6	11
Free to do as wish	4	27	3	15	0	0	7	17	7	23	3	20	2	18	12	21
Not too hard	5	33	6	30	2	29	13	31	9	30	8	53	2	18	19	34
Quite a bit	3	20	7	35	1	14	11	26	5	17	3	20	1	9	9	16
A lot	3	20	2	10	3	43	8	19	5	17	0	0	5	46	10	18
TOTAL	15	100	20	100	7	100	42	100	30	100	15	100	11	100	56	100
GAMMA	.1194								.1660							

TABLE 35

PERCENTAGES FOR NON-INDIAN MOTHERS' LEVEL OF "PRESSURE" ON THEIR CHILDRENS' SCHOOL WORK BY SEX AND LEVEL OF FAMILY INCOME

MOTHER GETS AFTER STUDENT TO DO WELL IN SCHOOL	MALE INCOME								FEMALE INCOME							
	LOW		AVERAGE		HIGH		TOTAL		LOW		AVERAGE		HIGH		TOTAL	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Doesn't have to	6	15	9	15	2	5	17	12	7	18	13	24	6	14	26	19
Free to do as wishes	3	7	4	7	3	8	10	7	7	18	4	7	9	20	20	15
Not too hard	14	34	20	33	14	38	48	35	18	47	13	24	16	36	47	35
Quite a bit	12	29	16	26	10	27	38	27	3	8	13	24	5	11	21	15
A lot	6	15	12	20	8	22	26	19	3	8	11	20	8	18	22	16
TOTAL	41	100	61	101	37	100	139	100	38	99	54	99	44	99	136	100
GAMMA	.0933								.0994							

TABLE 36

PROPORTION OF STUDENTS SAYING YES TO QUESTION, "HAS YOUR FATHER (STEPFATHER) OR MOTHER (STEPMOTHER) EVER SAID THAT SOME OF YOUR FRIENDS HAVE A BAD INFLUENCE ON YOUR SCHOOL WORK?" BY ETHNICITY, LEVEL OF INCOME, RESDIENCE AND SEX OF STUDENTS

	INDIAN				NON-INDIAN			
	Low Income	Average Income	High Income	All Income	Low Income	Average Income	High Income	All Income
Residence								
Farm Students								
Father	67	33	75	60	58	60	63	60
Mother	0	67	0	25	57	82	63	72
Non-farm Students								
Father	63	67	71	65	50	68	70	64
Mother	33	20	100	37	56	62	25	50
Sex								
Male Students								
Father	31	50	43	41	49	43	34	42
Mother	53	53	43	51	42	38	49	42
Female Students								
Father	38	38	36	38	26	22	35	27
Mother	43	38	33	40	26	32	32	30

there were no exceptions. One of the noticeable differences between students responses to fathers' and mothers' interest was the higher proportion of students checking low interest for fathers as opposed to mothers, especially in the low income group. However, data for all students revealed a relatively high perception of parental interest, ranging from a low of 42 percent indicating "a lot" of interest for Indian females for their fathers' level of interest to a high of 76 percent for Indian males in the case of their mothers' level of interest. In summary, degree of interest varies by ethnicity, level of income, sex of student, and identity of parents. Mothers appear to be more interested than fathers but level of perceived family income accounts for more variation for fathers. The lowest level of interest was reported for Indian females in the case of their fathers. However, the differences between Indian and non-Indian students are not consistently higher or lower. For example, data on degree of interest as measured by "a lot" of interest indicated that Indian males perceived both mother and father to have more interest than non-Indian males, but Indian females reported that their fathers and mothers have less interest in their school work than non-Indian females.[22]

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[22]The literature indicates a higher dropout rate for Indian females and these data may offer some insight into the variation dropout rates by sex.

The data for the relationship between parental "pressure" and levels of perceived family income are presented in Tables 32-35.

There were two exceptions to the expected positive relationship between pressure and level of income, non-Indian and female responses to fathers' "pressure." The highest positive relationship was reported for Indian students' responses to fathers' "pressure." Therefore, levels of family income account for more variation in "pressure" for Indian than non-Indian students.

One of the reasons for the negative correlations on "pressure" of non-Indian fathers, and the relatively lower magnitude of the gammas on the relationship between levels of income and "pressure" of mothers for non-Indian students may be the built-in expectation of high aspirations for high income non-Indian students, i.e., the necessity of parental pressure decreases by the time students reach high school and motivation to achieve in education is relatively high and self-propelling. This "hypothesis" can be checked by examining the data in Tables 32-35 on the response that reads "he (she) doesn't have to" for high income as contrasted with low income students. The data support this line of reasoning only in the case of Indian females, especially for "pressure" of fathers; the percentage difference between Indian and non-Indian female students was

19 percent. When all Indian responses to "pressure" questions are compared with all non-Indian responses by sex, Indian fathers are more likely to apply "quite a bit" or "a lot" of "pressure" than non-Indian fathers, but non-Indian mothers are as likely to apply "quite a bit" or "a lot" of "pressure" as Indian mothers. Two reasons for these findings will be presented as suggestions for further research. The first reason is that there is a cultural difference, e.g., Indian males are more likely than non-Indian males to take the role of adviser or disciplinarian in the area of school work. The second reason is based on economic and cultural differences; as the income of Indian fathers increases, the proportion of Indian students checking they "are free to do as they wish" tends to decrease, but as the income level of non-Indian fathers increases, the proportion of non-Indian female students checking "they are free to do as they wish" increases.

These data provide some support for the inference that Indian fathers with high levels of income as reported by their children (students) are more likely to use some "pressure" to get their children to perform well in school than low income fathers, whereas non-Indian fathers of high income levels apply less "pressure" than non-Indian fathers of low income. The data for "pressure" of mothers indicates that the relationship is reversed for Indian and non-Indian male students, i.e., Indian mothers with high income are more likely than non-Indian mothers to allow their children "to do as they wish." The data on "pressure" of mothers

for female students does not show systematic trends by income, therefore, definitive statements from these data would be inappropriate.

Several questions about parents' reactions to their childrens' friends were included. Students were asked if their parents had "ever said their friends had a bad influence, and/or a good influence" on them. Differences between Indian and non-Indian students as reported in Tables 36 and 37 were low in magnitude.

There were some systematic differences by levels of income but the percentage differences between low and high income students were very slight. Therefore, the most accurate inference from these data is that the distributions of differences by ethnicity, residence, sex and level of income does not permit definitive inferences between control groups. One of the reasons for the small and unsystematic differences might have been that the question as asked reflected only one of hundreds of ways that parents can inform their children that they approve or do not approve of their friends in relation to their school work.

SUMMARY

The major objective of this study was to determine which of several eligible persons is most influential in influencing students' educational aspirations, expectations and potential performance, and the

TABLE 37

PROPORTION OF STUDENTS SAYING YES TO QUESTION, "HAS YOUR FATHER (STEPFATHER) OR MOTHER (STEPMOTHER) EVER SAID THAT SOME OF YOUR FRIENDS HAVE A GOOD INFLUENCE ON YOUR SCHOOL WORK?" BY ETHNICITY, LEVEL OF INCOME, RESIDENCE AND SEX OF STUDENTS

	INDIAN				NON-INDIAN			
	Low Income	Average Income	High Income	All Income	Low Income	Average Income	High Income	All Income
Residence								
Farm Students								
Father	25	43	40	38	38	27	26	30
Mother	25	50	20	35	32	29	35	31
Non-farm Students								
Father	37	45	43	41	39	39	41	40
Mother	49	48	47	48	36	42	43	40
Sex								
Male Students								
Father	19	33	14	24	21	27	26	25
Mother	13	25	14	19	20	27	24	24
Female Students								
Father	28	25	18	25	21	16	30	22
Mother	21	25	33	25	26	26	42	31

ways in which they influence students. A second objective was to explore variation in influence by ethnicity, residence, sex and level of family income as reported by students.

The findings showed conclusively that parents are perceived to have the most influence on students' school work, and that siblings are next in importance. The proportion who chose father or mother as most influential always exceeded the proportion who chose other eligible persons by a 2:1 or 3:1 ratio when compared with siblings and much higher ratios for other eligible persons. The data also indicated that there was variation in choice of most influential parent by ethnicity, residence, sex and level of family income. The greatest and most consistent variation was accounted for by sex and level of family income. As one would expect, female students were more likely to choose mothers and male students to choose fathers. When level of family income was introduced as a control variable, there was a strong tendency for an increasing probability of choosing father, and of father having higher educational aspirations for their children, higher interest in their children's school work, and applying more "pressure" on their children to do well in their school work, especially Indian students. Differences between Indian students and non-Indian students were not as great as differences between low and high income students in either ethnic group.

IMPLICATIONS

Any implications arising from the findings in this study are predicated on the basis of several assumptions about the data. First, the level of family income as reported in these findings is or would have been congruent with levels of income as reported using other procedures and techniques of measurement. Second, measures of parental influence are based on students perceptions of what they thought their parents would think or do. Therefore, one might question whether students' perceptions of income or influence are reliable estimates of family income in influence. The question about the reliability of family income has been addressed in another publication.[23] The question of actual versus perceived influence is complex for the following reasons. First, even if one has measures of influence as perceived by parents or other "objective" observers, one cannot be positive that children (students in this case) will perceive influence attempts or expectations in the same way or degree. Second, the solution is not one of semantics but an empirical question which can only be solved or answered by determining which measure of parental influence accounts for more variation in students' aspirations, expectations, and performance. Hence, the question cannot be answered with these data, and the inferences apply to perceptions of influence, and perception of family income as it accounts for variation in influence. Finally, the data are reported for students in a particular age bracket, approximately

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[23]See footnote #8 for title of publication

13 to 18 years of age enrolled in high school in rural areas of Montana.

There are several implications which follow from the findings. First, the variation in choice of parent and the relatively higher level of perceived influence of fathers by level of perceived income indicates that one cannot use the data on variation in choice and degree of influence without taking into account income levels of parents. Therefore, guidance counselors and other school personnel might use levels of income as a selective criterion in cooperative arrangements between parents, students, and educational activities. The findings also have implications at a level outside the school system itself, i.e., an increase in family income, however produced, may raise the educational aspirations, interest and "pressure" of fathers. The former is most likely to have the most immediate payoff, while the latter may have the most lasting and beneficial effect on educational aspirations and performance of students, particularly Indian students. Finally, the data suggest new hypotheses for testing, e.g., the process of influence, particularly the variation in influence accounted for by level of income and sex.

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